

Date: Wed, 22 Dec 93 04:30:39 PST
From: Ham-Space Mailing List and Newsgroup <ham-space@ucsd.edu>
Errors-To: Ham-Space-Errors@UCSD.Edu
Reply-To: Ham-Space@UCSD.Edu
Precedence: Bulk
Subject: Ham-Space Digest V93 #118
To: Ham-Space

Ham-Space Digest Wed, 22 Dec 93 Volume 93 : Issue 118

Today's Topics:

 ANS-351 BULLETINS
 APT-Satellites: Report DEC 18, 1993
 New Bird: PoSat-1
 Satel Tracking Software (2 msgs)
 Some RS Questions

Send Replies or notes for publication to: <Ham-Space@UCSD.Edu>
Send subscription requests to: <Ham-Space-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Space Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-space".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Sun, 19 Dec 1993 12:18:22 MST
From: sdd.hp.com!sgiblab!swrinde!cs.utexas.edu!math.ohio-state.edu!
cyber2.cyberstore.ca!nntp.cs.ubc.ca!cs.ubc.ca!alberta!nebulus!ve6mgs!
usenet@network.ucsd.edu
Subject: ANS-351 BULLETINS
To: ham-space@ucsd.edu

SB SAT @ AMSAT \$ANS-351.01
PHASE-3D STATUS REPORT!

HR AMSAT NEWS SERVICE BULLETIN 351.01 FROM AMSAT HQ
SILVER SPRING, MD DECEMBER 18, 1993
TO ALL RADIO AMATEURS BT
BID: \$ANS-351.01

The Phase 3-D Project Shifts Into High Gear

Following a series of meetings both in the United States and Germany

involving key members of the International Phase 3-D Project Development Team, work on construction of the new amateur satellite is moving forward at an accelerated pace.

On December 11th and 12th, Hanspeter Kulen, DK1YQ, along with Dr. Karl Meinzer, DJ4ZC, AMSAT-DL President and Phase 3-D Team Leader, hosted a key meeting of the project's international participants near Munich, Germany. AMSAT-NA's Vice President for Engineering, Dick Jansson, WD4FAB, and Dr. Tom Clark, W3IWI, AMSAT-NA's President Emeritus and a key member of the Phase 3-D GPS experiment group, were also in attendance. Both Dick and Tom report that all phases of the project are "on track" for the expected launch of Phase 3-D in 1996.

"Each country's team is performing their assigned tasks very well," said Jansson on Dec. 13th, soon after his return from Germany. Clark observed that, "we are really pulling together as an international group." He went on to note that, "thanks to the work of our European, South African and Japanese friends, it now looks like we'll have some superb cameras, some really 'hot' receivers and some very powerful transmitters on Phase 3-D when it's launched in 1996." Specifically, Dick mentioned that Mike Dorsett's (G6GEJ) effort's on the spacecraft's 2 Meter transmitter are right on schedule and that Mike's proposed construction approach has already met all the key design parameters.

During the Munich meeting, Jansson was presented with a token of appreciation by Dr. Karl Meinzer for his outstanding contributions to the project. Karl cited Dick's superb design work on the Phase 3-D structure and thermal control system as well as his tireless efforts in support of the overall international project.

Just prior to his meetings in Germany, Jansson met with both students and faculty members from AMSAT-NA's team at Weber State University in Ogden, Utah. Weber students are now in the process of building the flight model structure for Phase 3-D. Dick reports that this vitally important portion of AMSAT-NA's role in the overall effort is "also on schedule for delivery of flight hardware next June."

Other major contributions by AMSAT-NA to the project in the coming year will include the purchase of the spacecraft's heat pipes, solar panels and flight batteries, as well as final construction of the spacecraft's GPS positioning experiment, antennas and propellant flow hardware. In addition, yet another group of some 15 dedicated volunteers have now been assembled in the Orlando, Florida area. These people are already in the process of both securing and preparing the spacecraft's final integration facility. This team will also assist other project team members with integration activities beginning in mid-1994.

Jansson concluded by saying, "there is still a lot of work left on all

of our plates between now and 1996." He also had high praise for the many volunteers now working on the project. "The ongoing work of our volunteers is of high quality, and is much appreciated. Without their selfless efforts, the Phase 3-D project simply would not happen." Jansson said.

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SB SAT @ AMSAT \$ANS-351.02
K0-25 EARTH IMAGING INFORMATION

HR AMSAT NEWS SERVICE BULLETIN 351.02 FROM AMSAT HQ
SILVER SPRING, MD DECEMBER 18, 1993
TO ALL RADIO AMATEURS BT
BID: \$ANS-351.02

K6OYY Passes Along Some Information About KITSAT-OSCAR-25 (K0-25)

K6OYY has received an informative message from Mr. Hyungshin Kim of SaTReC/KAIST in Korea. Mr. Kim reports that the K0-25 images are not currently on K0-23, but that they will be available on K0-25 when its BBS is opened up sometime next year.

Currently images on K0-23 have the designation KAIWxxxx or KAINxxxx depending upon which imaging system was used; images from K0-25 will have KBIWxxxx or KBINxxxx as file designations.

In response to K6OYY's inquiry, Mr. Kim also indicated that it is possible for amateur experimenters to process the COLOR images from K0-25! He further stated that the designer of the K0-25 color CCD camera is preparing an article on how to do this.

K0-25 continues transmit strong signals with good modulation quality as received here by K6OYY at Santa Barbara, CA QTH. The Kitsat Team is very busy at the moment conducting experiments with the various systems on K0-25. Mr. Kim reports that one of his colleagues has been asked to prepare an article for the AMSAT publications.

[The AMSAT News Service (ANS) would like to thank Jim Shepherd (K6OYY) for the information which went into this bulletin item. For those on who live near the Santa Barbara, CA area, K6OYY is the 75M AMSAT West Coast HF Net Control Station. Listen for K6OYY on 3840 KHz every Tuesday night at 8:00 P.M. PST.]

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SB SAT @ AMSAT \$ANS-351.03
MIR COSMONAUTS HEARD

HR AMSAT NEWS SERVICE BULLETIN 351.02 FROM AMSAT HQ
SILVER SPRING, MD DECEMBER 18, 1993

TO ALL RADIO AMATEURS BT
BID: \$ANS-351.03

WA6ZVP Explains Working One Of the Russian Cosmonauts Aboard MIR

WA6ZVP noting one morning this past week that during a MIR pass on the west coast would provide him a good pass for a visual sighting. Getting up just as the spacecraft came above the horizon, he had noted again that the AOS time was about 3 minutes or so before it would pass out of the earth's shadow. With his receiver set to 145.550 MHz, he started to hear the normal packet traffic.

Just as WA6ZVP was about to go outside his house, he started hearing voice traffic but at first thought it was just some of the Los Angeles "locals" going QRMing the frequency and complaining about the packet traffic.

Much to his surprise, however, when WA6ZVP turned the volume up to hear the voice of a cosmonaut speaking broken but very understandable English. The cosmonaut was in a QSO with another station which could not be heard locally or from a mountain top remote.

During the 5 or 6 minutes that I heard him, he did not identify so I don't know what call he is using. Presumably it was ROMIR. The best that WA6ZVP can recall, the cosmonauts have not been on voice for over 4-6 months.

For all those wishing to work ROMIR, please listen first before transmitting packet. As in the case of WA6ZVP, you might be surprised!

[The AMSAT News Service (ANS) would like to thank Roger Wiechman (WA6ZVP) for this bulletin.]

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SB SAT @ AMSAT \$ANS-351.04
AMSAT OPS NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 351.04 FROM AMSAT HQ
SILVER SPRING, MD DECEMBER 18, 1993
TO ALL RADIO AMATEURS BT
BID: \$ANS-351.04

Current AMSAT Operations Net Schedule For AO-13

AMSAT Operations Nets are planned for the following times. Mode-B Nets are conducted on AO-13 on a downlink frequency of 145.950 MHz. If, at the start of the OPS Net, the frequency of 145.950 MHz is being used for a QSO, OPS Net enthusiasts are asked to move to the alternate frequency of 145.955 MHz.

Date	UTC	Mode	Phs	NCS	Alt NCS
3-Jan-94	0200	B	160	WA5ZIB	N7NQM

Any stations with information on current events would be most welcomed. Also, those interested in discussing technical issues or who have questions about any particular aspect of OSCAR statellite operations, are encouraged to join the OPS Nets. In the unlikely event that either the Net Control Station (NCS) or the alternate NCS do not call on frequency, any participant is invited to act as the NCS.

Slow Scan Television on AO-13

SSTV sessions will be held on immediately after the OPS Nets a downlink on a Mode-B downlink frequency 145.960 MHz.

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SB SAT @ AMSAT \$ANS-351.05
WEEKLY OSCAR STATUS REPORTS

HR AMSAT NEWS SERVICE BULLETIN 351.05 FROM AMSAT HQ
SILVER SPRING, MD DECEMBER 18, 1993
TO ALL RADIO AMATEURS BT
BID: \$ANS-351.05

Weekly OSCAR Status Reports: 18-DEC-93

AO-13: Current Transponder Operating Schedule:

L QST *** AO-13 TRANSPONDER SCHEDULE *** 1993 Nov 15-Jan 31
Mode-B : MA 0 to MA 95 ! / Eclipses, max
Mode-B : MA 95 to MA 180 ! OFF Dec 07 - 24. < duration 136
Mode-B : MA 180 to MA 218 ! \ minutes.
Mode-S : MA 218 to MA 220 !<- S beacon only
Mode-S : MA 220 to MA 230 !<- S transponder; B trsp. is OFF
Mode-BS : MA 230 to MA 256 ! Blon/Blat 240/-5
Omnis : MA 250 to MA 150 ! Move to attitude 180/0, Jan 31
[G3RUH/DB20S/VK5AGR]

FO-20: The following is the FO-20 operating schedule:

Analog mode: 15-Dec-93 07:41 -to- 22-Dec-93 8:05 UTC
Digital mode: otherwise noted above. [JJ1WTK]

The AMSAT NEWS Service (ANS) is looking for volunteers to contribute weekly OSCAR status reports. If you have a favorite OSCAR which you work on a regular basis and would like to contribute to this bulletin, please send your observations to WD0HHU at his CompuServe address of 70524,2272, on

INTERNET at wd0hhu@amsat.org, or to his local packet BBS in the Denver, CO area, WD0HHU @ W0LJF.#NECO.CO.USA.NOAM. Also, if you find that the current set of orbital elements are not generating the correct AOS/LOS times at your QTH, PLEASE INCLUDE THAT INFORMATION AS WELL. The information you provide will be of value to all OSCAR enthusiasts.

/EX

Date: Mon, 20 Dec 1993 08:33:30 GMT
From: sdd.hp.com!sgiblab!swrinde!cs.utexas.edu!howland.reston.ans.net!
newsserver.jvnc.net!gmd.de!peter.henne@gmd.de@network.ucsd.edu
Subject: APT-Satellites: Report DEC 18, 1993
To: ham-space@ucsd.edu

Observed at station 50.7 NLat, 7.1 ELon, DEC 18, 1993

NOAA-9: APT 137.62 On
NOAA-10: APT 137.50 *OFF*
NOAA-11: APT 137.62 On
NOAA-12: APT 137.50 On
Meteor 2-21: APT 137.85 ??
Meteor 3-3: APT 137.30 *OFF*
Meteor 3-5: APT 137.30 On

Meteor 2-21 could not be observed as from the stations location it passed in the dark or was too far south to be captured.

Meteor 3-5 performed RF off at 65 deg NLat on its noon-ascending passes, the 20 lpm low-res IR-transmission was inactive now.

NOAA-10 APT is off due to VHF-conflict with NOAA-12, this should end DEC 23 according to TBUS.

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|Peter Henne (peter.henne@gmd.de) |
| (henne@gmd.de) |
|German Nat.Research Center.f.Comp.Science |
|D-5205 St.AUGUSTIN 1 |
|Fed.Rep. of Germany |
+-----+

Date: Tue, 21 Dec 1993 13:22:41 GMT
From: zib-berlin.de!netmbx.de!Germany.EU.net!EU.net!news.inesc.pt!
animal.inescn.pt!ciup2.ncc.up.pt!news.ci.ua.pt!etruben@uunet.uu.net

Subject: New Bird: PoSat-1
To: ham-space@ucsd.edu

From: CT1DBS@CS1CRE.CTSR.PRT.EU

PoSat-1 will be available to all radio amateurs from 6 January 1994.
The PoSat-1 will work in JD mode (digital J mode)
The satellite primary mode will be in FSK, at 9600 bps,
with PacSat protocol.
THE PACKET SOFTWARE USUALLY USED WILL NOT WORK BECAUSE IT'S A
DIFFERENT SERVER.
It's necessary to use the software PB/PG commonly used in oscar 22
23, 25 and 26.

The uplink and downlink frequencies :

UPLINK

Primary Freq. - 145.975 MHz
Alternative Freq. - 145.925 MHz

DOWNLINK

Primary Freq. - 435.075 MHz
Alternative Freq. - 435.050 MHz

For work with the PoSat it will be necessary to use a tracking system
and have a good reception and emission . Automatic Doppler correction, +25 W
uplink and a pre-amplifier in downlink antenna will be necessary.
Right Circular Polarization in antenna give better results.
For reception it's enough a normal omnidirectional antenna.

The PoSat schedule will be determined by a commission established
with two Portuguese Marconi Co. members and two Amsat-Po members.

The first meeting will be in 13 December 1993.
As soon as the schedule is defined we will inform you.

For more information send a SASE to AMSAT-PO.

AMSAT-PO - P.O. Box 227 - 2003 SANTAREM CODEX - PORTUGAL

73

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Ruben Mendes]	Dept. Electronica e Telecomunicacoes
E-Mail : etruben@zeus.ci.ua.pt]		Universidade de Aveiro
Ham Callsign: CT1ETZ]	3800 Aveiro
Phone : +351 34 28032]	PORTUGAL

Date: Mon, 20 Dec 1993 13:06:29 GMT
From: ucsnews!sol.ctr.columbia.edu!howland.reston.ans.net!paladin.american.edu!
afterlife!blackbird.afit.af.mil!ss1!johnsotc@network.ucsd.edu
Subject: Satel Tracking Software
To: ham-space@ucsd.edu

In article <2f2r9b\$nc3@hip-hop.sbay.org>, benjie@hip-hop.sbay.org (Benjie Chen) writes:

|> I am getting interested in satel tracking, and I would like
|> suggestions on what tracking shareware I should get.
|>
|> All information are welcome.
|>
|> Thanks,
|>
|> Benjie
|>

Try PC-TRACK. It's available as PCT214A.ZIP at oak.oakland.edu (141.210.10.117) in the /pub/msdos/satelite directory.

Tom

Date: Tue, 21 Dec 1993 04:51:32 GMT
From: usc!howland.reston.ans.net!gatech!psuvax1!news.cc.swarthmore.edu!
netnews.upenn.edu!dsinc!wells!beyonet!olwejo!bob@network.ucsd.edu
Subject: Satel Tracking Software
To: ham-space@ucsd.edu

In <2f2r9b\$nc3@hip-hop.sbay.org>, benjie@hip-hop.sbay.org writes:
>I am getting interested in satel tracking, and I would like
>suggestions on what tracking shareware I should get.

For a UNIX system, (or possibly any computer with a good C compiler i.e. gcc) SatTrack 1.7 was just released. So far, it's the best freely-available tracking software I've found for UNIX. SatTrack does not use X, but vt100 screen mapping.

It's the best UNIX, free, non-X satellite tracker there is.

If anyone's seen better, feel free to let me know!

--

Bob Kupiec, N3MML
Morrisville, PA, USA
40d12'N 74d49'W +110ft
"Motorola 68k Inside!"

Internet: bob@zero.com
(or) kupiec@jvnc.net
AX.25: n3mml@wb3ftp.#epa.pa.usa.noam
PGP key 1F9C51 available ~ Get WiReD

Date: Mon, 20 Dec 1993 19:14:02 GMT
From: pacbell.com!sgiblab!sdd.hp.com!hp-cv!hp-pcd!hpcvsnz!
charlier@network.ucsd.edu
Subject: Some RS Questions
To: ham-space@ucsd.edu

Isaac Trefz (itrefz1@cc.swarthmore.edu) wrote:

: How come I can't track RS-12/13 using Traksat and current TLE data?

I'll let someone more directly knowledgeable on RS-10/11 answer your other questions, but I think I can handle this one.

RS-12/13 is actually physically part of a larger satellite, and the orbitals that NASA puts out refer to it under that name. Try entering "Cosmos 2123" as the satellite name and see if that works. If you get the abbreviated version of the three-line data from AMSAT, they substitute "RS-12/13" for the name. I prefer to get the AMSAT data for that reason, and because I'd rather deal with 30 satellites than 180 in my tracking program.

Lots of luck!

--

Charlie Panek KX7L Hewlett Packard Company
charlier@lsid.hp.com Lake Stevens Instrument Division
Everett, Washington

End of Ham-Space Digest V93 #118

